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#### **EXECUTIVE SUMMARY**

El Paso Merchant Energy (EPME) feels LDCs should be allowed to use risk management techniques to mitigate natural gas price volatility. The use of financial tools will provide the Massachusetts gas utilities with the means to hedge forward prices and take the volatility out of gas pricing.

Allowing the gas utilities to use financial tools is only the first step in a strategy to reduce volatility. To complete the task, the Department must implement policies that assure the LDCs of gas cost recovery if they are able to lock in prices within a predetermined range. EPME has based its comments on the concept of creating predetermined pricing targets for each LDC.

El Paso Merchant Energy (EPME) applauds the Department of Telecommunications and Energy's (Department) initiative to investigate the benefits of allowing Massachusetts LDCs to use risk management techniques to mitigate natural gas volatility. EPME appreciates the opportunity to provide comments.

Outlined below is a concept designed to establish the regulatory framework needed to initiate a risk-management structure for the LDCs serving Massachusetts. It is around this concept that EPME submits its ideas and responses.

- The Department, working with the Attorney General and each LDC, should
  determine acceptable pricing bands for natural gas purchased by each Massachusetts
  LDC. The upper and lower limits of the pricing bands should be set at levels that
  provide acceptable long-term pricing to customers yet are achievable by the LDC
  without sacrificing reliability. The price band(s) should be determined by reviewing
  historical gas prices and forward NYMEX gas prices.
- 2. The pricing bands should be defined as a range of acceptable cost, e.g. \$3.50 \$4.25, taking into account normal and seasonal market price fluctuations. "Cost' is defined as gas cost plus, if applicable, hedging cost.
- 3. If the LDC's gas costs fall within the pricing band, the costs would be considered prudent and could be passed through to customers. If the LDC's costs fall below the mid-point of the price band, the LDC would receive a share of the savings, calculated as a percentage of the delta between the mid-point of the pricing band and the

- delivered gas cost. If costs exceed the pricing band, the LDC's purchasing strategies and resulting gas costs would be subject to a prudence review by the Department.
- 4. The pricing band should be established by May of each year for the following November through October time period.
- 5. The pricing band should be a combination of supply area prices and import point prices. The transportation needed to move the gas from the supply area or import point to market has already been approved by the Department and should not be reviewed a second time.
- 6. The primary benefit of this structure are:
  - ?? It provides for greater price certainty.
  - ?? It relieves the Department from having to develop a complex review system for determining the validity of an LDC's price-management strategy. Instead, the review of an LDC's purchasing practices will be driven by whether the LDC's delivered price falls within the pricing band. (If the LDC's gas cost exceeds the pricing band, the Department can utilize the prudence review mechanism already in place.)
  - ?? It provides an incentive to the LDCs to reduce gas costs in relation to the established pricing band by participating in the savings that are achieved when gas cost fall below the benchmark

The key to this proposal is the Department's ability to set gas price targets that are acceptable to customers and realistically achievable by the LDC.

## ?? Should Massachusetts's gas utilities be allowed or required to implement a risk-management program to mitigate price volatility for gas customers?

The answer to this question depends on the Department's objectives in establishing a risk-management program. If the objective is to stabilize prices and to insure that customers are not subject to significant upward price swings in the winter period, then the Department should allow or require LDCs to undertake a purchasing program to achieve that objective. This would require a change to the Department's current policies, which put the LDCs at risk when they purchase fixed priced gas and actual daily or monthly prices fall below the prices locked-in by the LDC.

Any program adopted by the Department should provide pricing targets that, when met by the LDC, are considered prudent and eligible for recovery from customers. The current policies need to be revised because they shift market risk to the LDC when the LDC attempts to stabilize gas prices for customers through the purchase of fixed price gas. Additionally, the existing policies do not offer the LDC's stockholders any value for assuming this added level of risk. No private entity should be expected to take risk without an opportunity for gain.

It is imperative to allow LDCs to develop risk-management programs that include the use of financial hedging products. Without a viable hedging program, Massachusetts's customers will always be price takers and subject to the volatile pricing experienced in

the natural gas market. If the current policies are not changed, the LDCs will not use hedging products, and customers will have only traditional physical methods of dealing with skyrocketing prices. If the Department defines achievable <u>pricing targets</u> and if the Department develops policies that encourage the LDCs to hedge prices within the pricing targets, customers will be insulated from the volatility inherent in today's gas prices.

A major contributor to price volatility being passed through to ratepayers is the use of index pricing as the benchmark for determining if an LDC's supply practices are prudent. The indexes being used as benchmarks are inherently volatile and therefore produce volatile pricing by the LDCs. Until this paradigm changes, customers will remain price takers in a market where high volatility is the norm.

The primary flaws in the existing policy are:

- ?? If the LDCs locks in stable and reasonable prices and the market ultimately experiences unusually low prices, the LDC is at risk for being considered imprudent in its buying practices.
  - ?? Result: LDCs have little incentive to establish stable, long-term prices for customers, even when prices are at the low end of the expected cost spectrum. Conversely, current Department policies give LDCs an incentive to float with the market because gas purchased at index is considered a prudent purchase and the LDC can pass these costs through to its customers.
- ?? Prudence reviews that employ perfect hindsight, without an appreciation for market circumstances and outlook at the time of the buying decision, create a

disincentive to the LDCs to purchase fixed-price gas even when purchase can be made at historically prudent prices.

### ?? How will risk-management by LDCs affect gas unbundling and customer choice in Massachusetts?

Allowing LDCs to manage price risk creates price stability. Price stability will increase the attractiveness of gas to Massachusetts consumers, which will increase gas demand and increase the number of new customers looking for reliable gas providers. While most third-party suppliers in customer choice programs already rely on risk management tools to provide stable gas prices, LDCs' use of these tools will improve the overall image of natural gas as a reliable fuel of choice.

## ?? Should gas utilities be limited to specific types of risk-management instruments? If so, what types?

The LDCs should not be limited in the risk management tools they can use to mitigate their price exposure. Limiting the available tools only hampers the LDCs' ability to meet the Department's goal of price stability. Additionally, the market moves too quickly and develops new products too rapidly to have a codified system of determining which risk management tools are acceptable. The ultimate limiting factor should be whether or not the tools allow the LDC to provide gas supply within the pricing band prescribed by the Department.

?? Should there be a percentage volume of gas that LDCs would be allowed to hedge?

No. If the goal is price stability, leaving any portion of the gas portfolio unhedged, by definition, reduces price stability. If the Department adopts the proposal outlined by EPME, LDCs should be encouraged to hedge 100% of their volume within the acceptable pricing targets.

?? What should the core objectives of a hedging program be (e.g., least cost, price stability)

The goal of the program should be price stability. Hedging by definition is an exercise of using tools to achieve a desired outcome. If the desired outcome is a reduction in volatility, then the goal should be price stability. However, if least cost is the goal, the Department must be willing to allow the LDCs to purchase options that create uppermost limits on the price they pay for gas supply. (See examples on Attachment.)

?? How will the Department assess risk-management programs? What benchmarks should be used to measure a risk-management program's performance?

If the Department adopts the structure proposed by EPME, it will be easy to assess the risk-management program of each LDC because its performance will be benchmarked against the target price range. Providing positive or negative incentives to the LDCs will drive them to adopt prudent policies that increase their chances of meeting the pricing targets.

# ?? What standard of review should the Department apply to the utilities' initial risk-management program?

If the EPME model is adopted, the standard should be driven by the LDC's success at staying within the target price range. The Department should not attempt to micromanage the process and approve a program before allowing the LDC to implement the plan. The market moves very quickly and does not lend itself to a transaction-by-transaction review by the Department.

The LDC should be allowed to develop a risk management structure and then implement the plan at its own discretion. The Department should monitor the success based on the LDC's ability to meet the target prices. If the LDC's prices are above the pricing band's upper limit, they should be subject to review and at risk for the delta between their cost and the pricing band's upper limit.

?? What types of costs are associated with risk-management? Should LDCs be allowed to recover these costs? If so, please explain how.

The fixing of forward pricing carries only a nominal cost. This is especially true when dealing in very liquid markets such as NYMEX contracts and the supply area basis markets. Other instruments such as PUTS (The right but not the obligation to <u>sell</u> a commodity to a counterparty at a predetermined price. The predetermined price is called a Strike Price.) and CALLS (The right but not the obligation to <u>purchase</u> a commodity from a counterparty at a predetermined price.) have costs that vary based on the volatility at the time of the transaction and whether the strike price of the instrument is at or near being 'in the money'. (Defined as a Strike price at or near the forward price, i.e., NYMEX + Basis.)

These risk-management costs should be considered a pass through to ratepayers if the LDC is able to achieve prices within the target price range. If an LDC's gas costs are above the range and the LDC included the costs of hedging tools, then the risk-management costs would be reviewed for prudence. Theoretically, the LDC would not use these tools unless they increase its chances of meeting the target price.

The costs associated with hedging should be recoverable through the gas price to the ratepayers. If the gas price, inclusive of the hedging costs, falls within the target range, no additional oversight is needed.

?? Should an incentive mechanism be used in conjunction with a risk management program? If so, please explain how this mechanism should be structured.

An incentive mechanism should definitely be part of the program. Innovation is encouraged when it can be rewarded. Without an incentive, the LDC's will be less motivated to expand the expertise of their staffs and/or seek the risk management expertise that resides in large nationally based energy providers. Without incentives, progress toward lower, more stable prices will be slower.

The incentives must be consistent and implemented with forethought. Incentives that create benefits to the LDC one year, only to work against the LDC in future years, are unproductive and fail to encourage innovation in reducing long-term gas costs.

The incentives can be structured to be both effective and simple. If the Department, at the outset, provides incentives to the LDCs to purchase gas at prices below the mid-point of the pricing range, then the LDCs will strive to seek a low price. The use of a benchmark price range also is simple in its application. The formula can be as straightforward as allowing the LDC to keep a predetermined percentage of the delta between the mid-point of the pricing band and the gas purchase price they achieve.

#### **ATTACHMENT**

It is impossible to participate in a falling gas market without incurring the risk of being trapped in a rising market, unless a risk management program is implemented. Without hedging, participants in a volatile market are as likely to encounter prices above historical levels as prices below the same historical levels. If an entity wants to participate in a falling market, without risking participation in a rising market, the entity must incorporate options into its purchasing decision. Shown below are two examples that demonstrate the mechanics and value of purchasing either a physical Put or a physical Call.

#### Example 1.: Protecting against rising prices using a **Physical Put**

Fixed Price Gas Cost: \$4.00 (NYMEX = \$3.65, BASIS = \$0.35)

Put Option with \$4.00 strike \$1.00

Total Delivered Cost \$5.00 (Fixed Gas Price = \$4.00 + Option

Premium = \$1.00)

In this example, the buyer purchases fixed priced gas at \$4.00 and the option to Put the same quantity to a counterparty at the same \$4.00 price any time prior to expiration of the option. Once the fixed price gas is purchased and the hedge (Put) is in place, the range of gas prices is reduced to an extreme of \$1.00 if gas becomes free, to a maximum of \$5.00, regardless of how high prices rise above the original Fixed Price Gas Cost of \$4.00. This limited range is achievable because the PUT can be exercised in a falling market, allowing the entity to sell the gas purchased earlier at the \$4.00 fixed price back to the counterparty at the same \$4.00 fixed price and then replace the gas with lower cost market priced gas.

	Fixed Price Gas		
Market Priced Gas	Cost	Option Premium	Expected Gas Cost
<sup>1</sup> \$1.00	\$4.00	\$1.00	\$2.00
1 \$2.00	\$4.00	\$1.00	\$3.00
<sup>2</sup> \$4.00	\$4.00	\$1.00	\$5.00
<sup>3</sup> \$6.00	\$4.00	\$1.00	\$5.00
<sup>3</sup> \$8.00	\$4.00	\$1.00	\$5.00
<sup>3</sup> \$10.00	\$4.00	\$1.00	\$5.00

- 1. Option exercised Original Fixed Price Gas Sold to counterparty at \$4.00 and replaced with Market Priced Gas
- Indifference point
- 3. Option NOT exercised Buyer completes purchase of \$4.00 gas

#### Example 2.: Protecting against rising prices using a **Physical Call**

Market priced up to the \$4.00 Call Gas Cost:

Call Option with \$4.00 strike \$1.00 **Total Delivered Cost** Varied

In this example, the buyer purchases a Call that provides the right but not the obligation to purchase gas for \$4.00. This option will be exercised only when market priced gas exceeds \$4.00. The Call allows the buyer to cap its gas cost at the \$4.00 Call price plus the option premium.

	Strike Price of Call		
Market Priced Gas	Option	Option Premium	Expected Gas Cost
1 \$1.00	\$4.00	\$1.00	\$2.00
1 \$2.00	\$4.00	\$1.00	\$3.00
<sup>2</sup> \$4.00	\$4.00	\$1.00	\$5.00
<sup>3</sup> \$6.00	\$4.00	\$1.00	\$5.00
<sup>3</sup> \$8.00	\$4.00	\$1.00	\$5.00
<sup>3</sup> \$10.00	\$4.00	\$1.00	\$5.00

<sup>4.</sup> Option NOT exercised – Market Priced Gas is below the Strike price of the option

<sup>5.</sup> 6. Indifference point

Option exercised – Buyer purchase